Is Virtual Reality a Useful Tool in Developing Communication Skills in Foundation Doctors?

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Abstract:

Effective communication is a fundamental skill for foundation doctors across all clinical environments and specialties. Early postgraduate clinicians are required to communicate clearly and compassionately with patients, relatives, and multidisciplinary teams in a wide range of settings, often whilst managing uncertainty, complexity, and time pressures. Traditional approaches to communication skills training, including bedside teaching and role-play simulation, can be limited by variable clinical exposure, limited teaching opportunities, and learner confidence. Virtual reality (VR) offers an immersive and interactive educational environment which may provide a scalable and psychologically safe alternative for developing communication skills in early postgraduate training.

Aim:

To evaluate the perceived usefulness and impact of VR-based communication skills training amongst foundation doctors.

Method:

Pilot qualitative study with grounded theory. We asked Resident doctors at Wrexham Maelor Hospital to utilise the Enhance Programmes Virtual Reality session *Complex Multimorbidity, Unit 2 – The Emergency Department*[1]. They were then asked to complete a feedback form on their experiences where we used a mix of multiple choice and text boxes to ask about any preconceived notions, accessibility issues, device used, usefulness, engagement index, and thoughts on its usefulness in medical education.

VR Learning Module:

It utilises 360 degree immersive video technology to provide a realistic experience in real time.

This VR session puts you in the position of a confused patient who is hard of hearing in the emergency department.

Please scan the QR code to experience the VR Learning module.

"More immersive and engaging than traditional teaching methods"

"Allows you to experience things rather than learning from being told"

"It is good to have a mix of traditional and VR teaching"

"Helpful in imagining a real scenario with a real patient and being able to see treatment from the patient's perspective"

Results:

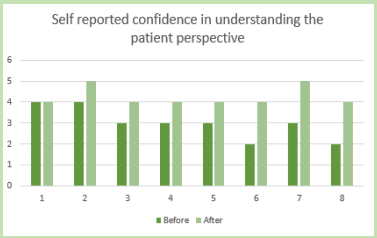
We received 8 responses to our survey including 6 Foundation Year 1 doctors, 1 trainee in higher specialty training and a medical student.

100% of respondents reported believing that VR is a useful educational tool in communication skills training. 7/8 respondents said they would like to see VR incorporated into future medical education programs.

7/8 respondents reported finding it more engaging than traditional teaching methods.

<u>Accessibility</u>

We asked participants what device they used, 2 used laptops, 2 used a desktop and 4 used mobile phones. The type of device used didn't seem to affect accessibility however 2 participants reported poor connectivity meant some delay in loading content. 1 reported that they thought access to a dedicated VR device or headset would have improved the experience and helped them feel more immersed.





Conclusion:

VR can give trainees a unique experience and allows equal access to a wide variety of experiences that may otherwise be limited by placement allocation.

All participants considered VR to be a useful educational tool, with most reporting greater engagement than traditional teaching methods and expressing support for its inclusion in future medical education as an engaging and accessible adjunct to communication skills training.

Most participants reported modest improvement in confidence in their communication skills and in their ability to appreciate the patient perspective and their perception of healthcare.

While further research is needed, learner feedback suggests that the immersive patient-perspective experience offered by VR may enhance empathy and understanding of patient experiences. Although this pilot study was limited by its small sample size and reliance on subjective outcomes, the findings support further evaluation of VR-based communication training using larger cohorts and objective measures of educational effectiveness.





References:

1. NHS England. *Complex Multimorbidity, Unit 2 – The Emergency Department*. [Internet]. [cited 2026 Jun 2]. Available from: https://learninghub.nhs.uk/resource/html/51312/57737/index.html
2. Birkheim L, et al. Advancing immersive virtual reality-based simulation practices: developing an evidence-based and theory-driven pedagogical framework for VR-based simulations of non-technical skills among healthcare professionals. *Int Learn Environ.* 2023. doi:10.1080/10494820.2023.2186896.
3. Blair C, et al. Immersive 360° videos in health and social care education: a scoping review. *BMC Med Educ.* 2021;21 (590) 1-28